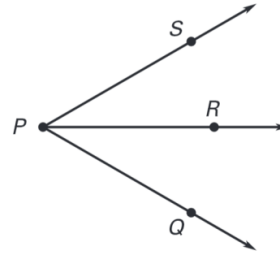


Complete each of the following by supplying the missing statements and reasons.

1. Given: $m\angle RPQ = m\angle RPS$
Prove: $m\angle SPQ = 2m\angle RPQ$



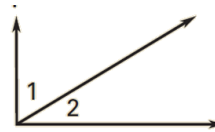
Statements	Reasons
1. $m\angle RPQ = m\angle RPS$	1. Given
2. $m\angle SPQ = m\angle SPR + m\angle RPQ$	2.
3. $m\angle SPQ = m\angle RPQ + m\angle RPQ$	3.
4.	4. Simplify

2. Given: $MA = TH$
Prove: $MT = AH$



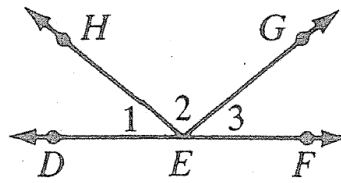
Statements	Reasons
1. $MA = TH$	1.
2.	2. Reflexive Prop. of Eq.
3.	3.
4. $MA + AT = MT$ $AT + TH = AH$	4.
5.	5. Substitution Prop. of Eq.

3. Given: $m\angle 1 + m\angle 2 = 90^\circ$
 $m\angle 1 = 59^\circ$
 Prove: $m\angle 2 = 31^\circ$



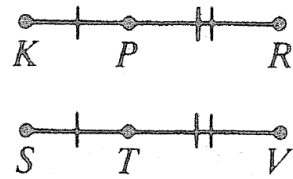
Statements	Reasons
1. $m\angle 1 + m\angle 2 = 90^\circ$ $m\angle 1 = 59^\circ$	1.
2. $m\angle 2 = 90^\circ - m\angle 1$	2.
3.	3.
4.	4.

4. Given: $m\angle 1 = m\angle 3$
 Prove: $m\angle DEG = m\angle HEF$



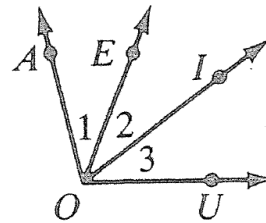
Statements	Reasons
1.	1. Given
2. $m\angle 2 = m\angle 2$	2.
3. $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$	3.
4. $m\angle DEG = m\angle 1 + m\angle 2$ $m\angle HEF = m\angle 2 + m\angle 3$	4.
5.	5. Subst. Prop. Of Eq.

5. Given: $KP = ST$
 $PR = TV$
 Prove: $KR = SV$



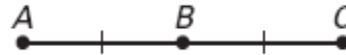
Statements	Reasons
1.	1. Given
2. $KP + PR = ST + TV$	2.
3.	3. Segment Add. Post.
4. $KR = SV$	4.

6. Given: $m\angle AOI = m\angle EOU$
 Prove: $m\angle 1 = m\angle 3$



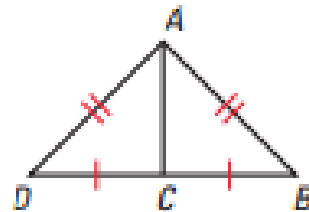
Statements	Reasons
1.	1.
2.	2. Angle Add. Post.
3. $m\angle 1 + m\angle 2 = m\angle 2 + m\angle 3$	3.
4. $m\angle 2 = m\angle 2$	4. .
5. $m\angle 1 = m\angle 3$	5. .

7. Given: $AB = BC$
 Prove: $AC = 2BC$



Statements	Reasons
1.	1.
2.	2.
3. $AC = BC + BC$	3.
4.	4.

8. Given: $AD = AB$
 $DC = CB$
 Prove: Perimeter of $\triangle ABC =$ Perimeter of $\triangle ADC$



Statements	Reasons
1.	1.
2. $AC = AC$	2.
3.	3. Addition Prop. of Eq.
4.	4. Definition of a Perimeter
5.	5.